CLAIMS

What is claimed is:

1.   A method for managing an uncorrectable data error (UE) as the UE passes
through a plurality of devices in a central electronic complex (CEC), the method comprises the
steps of:

    (a)   detecting a UE-RE by at least one device in the CEC;

    (b)   providing an attention signal by at least one device to a diagnostic
system to indicate the UE-RE condition; and

    (c)   analyzing the UE-RE attention signal by the diagnostic system to
produce an error log with a list of failing parts and a record of the log.

2.   The method of claim 1 wherein the UE can produce any of the following
conditions: a UE-RE condition; an SUE-mask condition; SUE interrupt condition; and a SUE-
CS condition.

3.   The method of claim 2 wherein the SUE-mask condition does not need to be
reported.

4.   The method of claim 1 wherein the diagnostic system comprises a processor
runtime diagnostic (PRD) code.

5.   The method of claim 2 wherein the detecting step (a) comprises the steps of:

    (a1)   detecting a UE-RE condition by a first device; and

3   (a2)   detecting a special uncorrectable data error (SUE) condition by at least one

4   other device at a later point in time, wherein the detection of the UE-RE condition by the first

5   device produces a UE-RE condition and the detection of the SUE condition by the at least one

6   other device produces a SUE-CS condition, wherein the UE-RE condition and the SUE-CS

7   condition are processed at substantially the same time.

1   6.   The method of claim 4 wherein the PRD code is within a service processor.

1   7.   The method of claim 6 wherein the PRD code accesses each of the plurality of

    devices through an interface within the service processor.

1   8.   The method of claim 7 wherein the interface comprises a JTAG interface.

1   9.   A computer readable medium containing program instructions for managing an

2   uncorrectable data error (UE) as the UE passes through a plurality of devices in a central

3   electronic complex (CEC), the program instructions for:

4   (a)   detecting a UE-RE by at least one device in the CEC;

5   (b)   providing an attention signal by at least one device to a diagnostic

6   system to indicate the UE-RE condition; and

7   (c)   analyzing the UE-RE attention signal by the diagnostic system to

8   produce an error log with a list of failing parts and a record of the log.

1   10.   The computer readable medium of claim 9 wherein the UE can produce any of

2   the following conditions: a UE-RE condition; an SUE-mask condition; SUE interrupt

3   condition; and a SUE-CS condition.

1   11.   The computer readable medium of claim 10 wherein the SUE-mask condition

2   does not need to be reported.

1   12.   The computer readable medium of claim 9 wherein the diagnostic system

2   comprises a processor runtime diagnostic (PRD) code.

1   13.   The computer readable medium of claim 10 wherein the detecting step (a)

2   comprises the steps of:

3   (a1)   detecting a UE-RE condition by a first device; and

4   (a2)   detecting a special uncorrectable data error condition (SUE) condition by at

5   least one other device at a later point in time, wherein the detection of the UE-RE condition by

6   the first device produces a UE-RE condition and the detection of the SUE by the at least one

7   other device produces a SUE-CS condition, wherein the UE-RE condition and the SUE-CS

8   condition are processed at substantially the same time.

1   14.   The computer readable medium of claim 12 where in the PRD code is within a

2   service processor.

1   15.   The computer readable medium of claim 14 wherein the PRD code accesses

2   each of the plurality of devices through an interface within the service processor.

1   16.   The computer readable medium of claim 15 wherein the interface comprises a

2   JTAG interface.

1   17.   A service processor for managing an uncorrectable data error (UE) as the UE

2   passes through a plurality of devices in a central electronic complex (CEC), the service

3   processor comprises:

4   an attention handler for detecting a UE-RE by at least one device in the CEC and

5   providing an attention signal by at least one device to indicate the UE-RE condition; and

6   a diagnostic system for receiving the attention signal and for analyzing the UE-RE

7   attention signal to produce an error log with a list of failing parts and a record of the log.

1   18.   The service processor of claim 17 wherein the UE can produce any of the

2   following conditions: a UE-RE condition; an SUE-mask condition; SUE interrupt condition,

3   and a SUE-CS condition.

1   19.   The service processor of claim 18 wherein the SUE-mask condition does not

2   need to be reported.

1   20.   The service processor of claim 17 wherein the diagnostic system comprises a

2   processor runtime diagnostic (PRD) code.

1   21.   The service processor of claim 18 wherein the attention handler detects a UE-

2   RE condition by a first device, and detects a special uncorrectable data error checkstop (SUE-

3   CS) condition by at least one other device at a later point in time, wherein the UE-RE condition

4   and the SUE-CS conditions are processed at substantially the same time.

1   22.   The service processor of claim 20 wherein the PRD code accesses each of the

2   plurality of devices through an interface within the service processor.

1   23.   The service processor of claim 22 wherein the interface comprises a JTAG

2   interface.

1   24.   A method for managing an uncorrectable data error (UE) as the UE passes

2   through a plurality of devices in a central electronic complex (CEC), the method comprises the

3   steps of:

4   (a)   detecting a UE-RE condition by at least one device in the CEC wherein the

5   detecting step (a) comprises the steps of: (a1) detecting a UE-RE condition by a first device;

6   and (a2) detecting a special uncorrectable data error (SUE) condition by the at least one other

7   device at a later point in time, wherein the detection of the UE-RE condition by the first device

8   produces a UE-RE condition and the detection of the SUE condition by the at least one other

9   device produces a SUE-CS condition, wherein the UE-RE condition and the SUE-CS

10   conditions are processed at substantially the same time;

11   (b)   providing an attention signal by at least one device to a processor runtime

12   diagnostic (PRD) code to indicate the UE-RE condition, wherein the PRD accesses each of the

13   plurality of devices through an interface within the service processor; and

14   (c)   analyzing the UE-RE attention signal by the diagnostic system to produce an

15   error log with a list of failing parts and a record of the log.

1   25.   The method of claim 24 wherein the UE can produce any of the following

2   conditions: a UE-RE condition; an SUE-mask condition; SUE interrupt condition; and a SUE-

3   CS condition.

1   26.   The method of claim 25 wherein the SUE-mask condition does not need to be

2   reported.

1   27.   The method of claim 26 wherein the PRD code is within a service processor.

1   28.   The method of claim 27 wherein the interface comprises a JTAG interface.

1   29.   A computer readable medium containing program instructions for managing an

uncorrectable data error (UE) as the UE passes through a plurality of devices in a central

electronic complex (CEC), the program instructions for:

(a)   detecting a UE-RE condition by at least one device in the CEC wherein the

detecting step (a) comprises the steps of: (a1) detecting a UE-RE condition by a first device;

and (a2) detecting a special uncorrectable data error (SUE) condition by the at least one other

7   device at a later point in time, wherein the detection of the UE-RE condition by the first device

8   produces a UE-RE condition and the detection of the SUE condition by the at least one other

9   device produces a SUE-CS condition, wherein the UE-RE condition and the SUE-CS

10   conditions are processed at substantially the same time;

11   (b)   providing an attention signal by at least one device to a processor runtime

12   diagnostic (PRD) code to indicate the UE-RE condition, wherein the PRD accesses each of the

13   plurality of devices through an interface within the service processor; and

14   (c)   analyzing the UE-RE attention signal by the diagnostic system to produce an

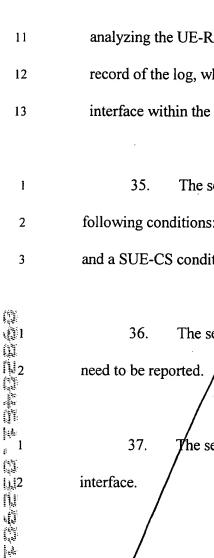15   error log with a list of failing parts and a record of the log.

1   30.   The computer readable medium of claim 29 wherein the UE can produce any of

2   the following conditions: a UE-RE condition; an SUE-mask condition; SUE interrupt

3   condition; and a SUE-CS condition.

1   31.   The computer readable medium of claim 30 wherein the SUE-mask condition

2   does not need to be reported.

1   32.   The computer readable medium of claim 31 wherein the PRD code is within a

service processor.

1   33.   The computer readable medium of claim 32 wherein the interface comprises a

JTAG interface.

1   34.   A service processor for managing an uncorrectable data error (UE) as the UE

2   passes through a plurality of devices in a central electronic complex (CEC), the service

3   processor comprises:

4   an attention handler for detecting a UE-RE by at least one device in the CEC and

5   providing an attention signal by at least one device to indicate the UE-RE condition, wherein

6   the attention handler detects a UE-RE condition by a first device, and detects a special

7   uncorrectable data error checkstop (SUE-CS) condition by at least one other device at a later

8   point in time, wherein the UE-RE condition and the SUE-CS conditions are processed at

9   substantially the same time; and

10   a processor runtime diagnostic (PRD) code for receiving the attention signal and for

11   analyzing the UE-RE attention signal to produce an error log with a list of failing parts and a

12   record of the log, wherein the PRD accesses each of the plurality of devices through an

13   interface within the service processor.

1   35.   The service processor of claim 34 wherein the UE can produce any of the

2   following conditions: a UE-RE condition; an SUE-mask condition; SUE interrupt condition,

3   and a SUE-CS condition.

1   36.   The service processor of claim 35 wherein the SUE-mask condition does not

2   need to be reported.

1   37.   The service processor of claim 36 wherein the interface comprises a JTAG

2   interface.